ied across GLP-1RAs and analyses (ranging from 2.162 [p<0.001] for exenatide vs. exenatide QW among initial adherers, to 0.986 [p=0.798] for liraglutide 1.8mg vs. exenatide QW among initial adherers, to 0.869 [p<0.001] for liraglutide 1.8mg vs. exenatide QW among all patients). **CONCLUSIONS:** Among patients newly initiating exenatide QW, exenatide, or liraglutide, adherence was consistently highest for exenatide QW, while non-persistence varied by analyzed group.

PDB137
**REVIEW OF THE USUAL TREATMENT OF ADULTS WITH TYPE 2 DIABETES IN JAPAN**
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**OBJECTIVES:** The personal and economic burden of diabetes is substantial and growing in Japan due to its aging population. This study aimed to review the available literature on the usual treatment of adults with type 2 diabetes (T2DM) in Japan. **METHODS:** Systematic search of the scientific literature was performed on MEDLINE and EMBASE databases to identify publications about usual care of diabetes in Japan written in English or Japanese and published between January 2000 and May 2013. Included keywords were diabetes mellitus, drug therapy and Japan. Randomized clinical trials, comparative or interventional studies were excluded. Of 17 publications that met search criteria, 13 pertained to adults with T2DM, of which 9 contained original survey data and 4 were literature reviews. **RESULTS:** Almost all of the available data was at least 7 years old. Based on data from 2000 to 2002, the use of oral anti-diabetic drugs (OAD) alone was the most prevalent treatment option (51.4%), followed by diet alone (25.4%), insulin alone (15.4%), and OAD with insulin (7.8%). Although overall, sulfonylureas was the preferred class of OAD (61-67%), its use among treatment initiators has dramatically declined from 40% to 22% following the introduction of dipeptidyl peptidase-4 inhibitors (DPP4) in 2009. Since then, the prescription rate of DPP4 increased to nearly 40% due to its perceived better safety. **CONCLUSIONS:** Available data on the treatment of diabetes in usual care in Japan is rather sparse and not recent. Results indicate that the treatment of adults with T2DM in Japan with OAD and insulin is rather similar to that in the US and Europe, although the specific OAD in Japan is different. Further research is needed on the usual treatment of diabetes in Japan, considering increased longevity, lifestyle changes, ongoing introduction of new medications, changes in disease management practices and increased economic concerns.

PDB139
**UNDER-DIAGNOSIS OF TYPE II DIABETES AMONG CHILEAN ADULT MEN: AN URGENT EQUITY ISSUE**
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**OBJECTIVES:** Type II Diabetes Mellitus (DM) is exponentially growing in Chile. A recent reform aimed at reducing inequities in health care in the country, but the gap between social groups continues to grow. We aimed at exploring the existence of under-diagnosis of type II DM in adult population in Chile. **METHODS:** Secondary analysis of cross-sectional Chilean Health Survey 2009-2010 (n=4767 adults, weighted sample: 13,347,316). We compared the proportion of adult population self-reporting type II DM against the proportion with altered fasting glycaemia (value >126mg/dl, Chi-square test) and then assessed the socio-demographic characteristics of those having the condition but ignoring it. For population-representative analysis we used Stata 12.0. **RESULTS:** 48.7% sample were men, mean age was 42 years (s.d.:40.8), 56.9% had middle socioeconomic status (SES), followed by high and low (18.6%, 24.5%) and 87% lived in urban areas. A 7.8% reported being diagnosed with type II DM. There was a significantly higher rate of self-reported DM among women than men (5.0% versus 2.8%) and people living in urban versus rural settings (6.7% and 1.0%). People with self-reported DM were on average 17 years older than people without previous diagnosis (mean:57.1). According to lab results, 8.4% of the total adult population had type II DM. From this group, over half (4.6%) had not been diagnosed with this condition before, representing over 280,000 people. They are mostly middle-aged men (mean age:46.6) from low and middle SES and living in urban areas. **CONCLUSIONS:** We found an under-diagnosis of type II DM among middle-aged male adults in Chile. Few recent studies report the urgent need to develop community-based strategies to enhance male use of health care, particularly to pursue screening consultations even when feeling healthy. This study supports such initiative and challenges the complex relationship between gender and SES, which could be further explored in Chile.

PDB140
**OUT-OF-POCKET SPENDING AND FINANCIAL BURDEN OF PRESCRIPTION DRUGS FOR DIABETES: 2007-2010**
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**OBJECTIVES:** To examine the changes in out-of-pocket spending and financial burden of prescription drugs for diabetes between 2007 and 2010. **METHODS:** The Medical Expenditure Panel Survey for 2007-2010 was analyzed for patients with diabetes. Out-of-pocket spending was defined as any self-reported coinsurance and deductibles, as well as payments for prescription medications that were not covered by insurance. Financial burden for prescription drugs was measured using the proportion of out-of-pocket expenditures divided by total family income in a given year. Expenditures for each year were adjusted using Consumer Price Index. **RESULTS:** The out-of-pocket spending for prescription drugs for treating diabetes was dropped significantly from $232.5 in 2007 to $197.9 in 2010, while the total expenditure for prescription drugs for diabetes increased dramatically from $875.9 to $1026.3 during the same period. This declined out-of-pocket spending was observed across different age, gender, and racial groups. From 2007 to 2010, the financial burden of prescriptions drugs for diabetes increased from 0.8% to 1.1%, which was largely driven by declined annual family income ($56,139 in 2007 to $52,811 in 2010). This increasing trend was observed particularly among diabetic patients with low family income (2.3% in 2007 to 5.0% in 2010). In the contrast, the financial burden of medications was relieved for those aged younger than 18 years old (1.8% in 2007 to 0.3% in 2010). Patients receiving insulins and thiazolidinediones had higher out-of-pocket spending as well as financial burden than those used other medications to treat diabetes. **CONCLUSIONS:** Patients' drug costs were reduced successfully between 2007 and 2010. However, the financial burden of prescription drugs for diabetes increased due to decreased family income. Since the use of prescription drugs is a vital part of diabetes management, more efforts should be directed to patients with low family income in order to improve affordability of prescription drugs.

PDB141
**EXCESS HEALTH CARE EXPENDITURES ASSOCIATED WITH PRESENCE OF THYROID DISORDERS AMONG INDIVIDUALS WITH DIABETES: A COST-DECOMPOSITION ANALYSIS**
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**OBJECTIVES:** To examine the relative contribution of predisposing, enabling, need, and external environment factors to the excess health care expenditures associated with thyroid disorders among individuals with diabetes, compared to individuals with diabetes and without thyroid disorders. **METHODS:** Cross-sectional study design with data on adults over 20 years of age with diabetes (N = 4,920) from two years (2009 and 2011) of the Medical Expenditure Panel Survey (MEPS) were used. Ordinary least square regressions on log-transformed total expenditures were performed to estimate the excess expenditures associated with thyroid disorders after controlling for predisposing, enabling, external environment, life-style and need factors as defined framework of the Anderson Behavior and Healthcare Utilization Model. Post-regression Blinder-Oaxaca (BO) decomposition analysis was performed to examine the relative contribution of factors in explaining the average differences in health care expenditures between the two groups. **RESULTS:** Among individuals with diabetes, those with thyroid disorders had greater annual mean expenditure compared to those without thyroid disorders ($ 14,289 *vs.* $10,636, p < 0.001). After accounting for the predisposing, enabling, external environment, life-style and need factors, those with thyroid disorders had 15% greater health care expenditures compared to those without thyroid disorders. The BO decomposition analysis revealed that predisposing, enabling, external environment, life-style and need factors explained 63% of the excess health care expenditures among individuals with thyroid disorders. The excess health care expenditures between the groups was predominantly explained by need-factors (43%). Presence of cardiovascular diseases, depression, arthritis, and cancer explained the excess expenditures between the groups among the need-factors. **CONCLUSIONS:** Presence of thyroid disorders is associated with greater health care expenditures among individuals with diabetes. Co-management of co-occurring conditions may reduce the excess health care expenditures among individuals with thyroid disorders and diabetes.

PDB143
**DISABILITY ADJUSTED LIFE YEARS LOST DUE TO DIABETES IN FRANCE, ITALY, GERMANY, SPAIN AND THE UNITED KINGDOM: A BURDEN OF ILLNESS STUDY**
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**OBJECTIVES:** To compare the burden of disease attributable to diabetes expressed in Disability Adjusted Life Years (DALYs) for five European countries in 2010. **METHODS:** DALYs lost to diabetes as the sum of years of life lost and years lived with disability were estimated by gender and age using country-specific epidemiological data and global disability weights. Data from various secondary sources were combined to estimate health loss due to diabetes for France, Germany, Italy, Spain and the UK. National statistical databases were used and in case necessary, community studies were used to derive the prevalence of diabetes by gender and age group which were weighted proportionately for a national population burden of disease estimate. All identified data were adapted to the Global Burden of Disease methodology (2010) to calculate the burden attributable to diabetes. No age weighting and discounting was applied. Sensitivity to different sources of variation was examined. **RESULTS:** Germany and Italy lost the largest number of DALYs due to diabetes with 5.9 and 5.8 per 1,000 inhabitants respectively, followed by Spain (4.4), France (3.7) and the UK (2.9). The highest burden was caused by mortality due to diabetes, with the exception of the UK, for which the burden due to disability of diabetes was higher. This may be explained by the way of reporting death in the UK. Mean DALYs lost were higher for women in Germany, Italy and Spain and showed to increase with age for all countries. Sensitivity analysis in variation in disability weights and uncertainty in epidemiological data showed to have effects on DALYs lost. **CONCLUSIONS:** In spite of data limitations, the estimates reported here show that DALY loss due to diabetes imposes a substantial burden on countries. Cross-national variation in disease epidemiology was the largest source of variation in the burden of diabetes between countries.

PDB144
**MATHEMATICAL SIMULATIONS OF ALOGLIPTIN-PIOGLITAZONE-TREATED PATIENTS MEETING QUALITY ASSURANCE HBA1C THRESHOLD REQUIREMENTS**
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**OBJECTIVES:** Alogliptin-pioglitazone (alo-pio) reduces HbA1c levels in treatment-naïve Type 2 diabetic (T2DM) patients, or those inadequately controlled by monotherapy. Yet, the percentage of patients on alo-pio continuing to meet HbA1c thresholds suggested by the National Committee for Quality Assurance (NCQA) is unclear but may be important to accountable care organizations (ACOs). This analysis examined whether NCQA recognition, aligning with >40% of patients below 7%, >60% below 8%, and ≤15% above 9% HbA1c, is achievable. **METHODS:**